CLAIMS APPENDIX

1. (Currently Amended) A heat sink ~~dissipating device~~ comprising means for improving the transfer of heat from at least one heat source mounted on a planar support to a said heat sink radiating into the ambient, ~~comprising:~~ wherein said
a heat source is a semiconductor chip device on a common wiring bearing planar support,

said semiconductor chip device mounted on said common wiring bearing planar support, forming a combination, said combination comprising an area,

a heat sink modular assembly ~~of~~ having a plurality of support fin members contiguously aligned side by side, said support fin members being formed from heat conducting material sheets selected from the group consisting of copper, aluminum or graphite fiber composite, said support fin members being in horizontal and vertical alignment with one another and extending along a longitudinal axis, said support fin members being in alignment with said planar support and covering said combination comprising said area;

each said support fin member having been formed from a said single heat conducting material sheet and folded into a substantially inverse U shape, each said support fin member having a top surface that extends continuously along said longitudinal axis of said support fin member, and having first and second side arms diametrically opposite each other, each said support fin member first side arm and second side arm having an inside surface, an outside surface and an edge, each said edge having a finger portion, each said finger portion consisting of a straight planar surface;

a plurality of parallel beam members made from heat conducting material, each said beam member having top, bottom and first and second side walls,
said first and second side walls of each beam member being positioned between and in contact with said inside surface of said first and second side arms respectively of each said support fin member;

PAGE 12/15 * RCVD AT 2/18/2009 4:13:55 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-5/45 * DNIS:2738300 * CSID:1 914 664 3645 * DURATION (mm-ss):05-36

said straight finger portion of said edge extending below said bottom wall of said beam member and ~~is~~ being folded inwardly toward a center line of each said beam member into said straight finger portion of said edge extending below said bottom wall of said beam member and ~~is~~ being folded inwardly beneath said beam toward a center line of each said beam member into a bent position to form a contacting support structure for said heat sink, ~~which~~ said straight finger portions folded inwardly beneath said beam forming ~~is~~ a compliant interface in contact with said heat source to dissipate heat emanating from said heat source to ~~the ambient~~ said heat sink ~~dissipation device~~.

2. (Canceled) The heat dissipating device defined in Claim 1 wherein said sheets are made of at least one of heat conducting materials selected from the group consisting of copper, aluminum, and graphite fiber composite.

3. (Currently Amended) The heat dissipating device defined in Claim 2 wherein said ~~sheets~~ first and second side arms sides are in a thickness range from 0.01 to 5 ~~micrometers~~ millimeters.

4. (Currently Amended) The heat dissipating device defined in Claim 3 wherein said first and second side arms are fixed to said first and second sides respectively of said beam member by a technique selected from the group consisting of soldering, brazing, welding or gluing.

5. (Cancelled) The heat dissipating device defined in Claim 1 wherein compliance is introduced into the interface with the lower face of said beam member through an extension of said sheets and the folding of the edges of those sheets into the interface with the lower face of said beam member.

PAGE 13/15 * RCVD AT 2/18/2009 4:13:55 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-5/45 * DNIS:2738300 * CSID:1 914 664 3645 * DURATION (mm-ss):05-36

6. (Currently Amended) The heat dissipating device defined in Claim 1 wherein said compliance is enhanced through at least one technique selected from the group consisting of: introducing thermally conductive grease between said finger portion of said folded edge which extends below said bottom wall of said beam member; introducing increasing resilience members between said folded edges and said bottom of said beam member; and, the use of low melting point solder at said folded edges at said bottom of said beam member.

7. (Withdrawn) The heat dissipating device defined in Claim 6 which also includes a heat conducting plate wherein heat in said heat conducting plate is passed to said heat dissipating device through a plurality of heat pipes wherein a first end of said heat pipe is embedded into said heat conducting plate and a second end of said heat pipe is in contact with the top wall of a plurality of said parallel beam members.

8. (Withdrawn) The heat dissipating device defined in Claim 7 having a spring placed between said top wall of said heat conducting plate which spring applies a force perpendicular to said interface of the lower surface of said beam members.

9. (Withdrawn) A heat dissipating device for improving the transfer of heat from at least one heat source mounted on a planar support to a heat sink radiating into the ambient, comprising

a stacked heat transfer structure including at least a first level having at least two parallel beam members each positioned in contact with said heat source and each supporting at least one superimposed subsequent level,

each said beam member in each said level further having side sheets thinner than said beam members, separated by said beam member with each side sheet fastened along edges of said beam,

heat pipe heat transfer with heat pipes entering through and exting through said sheets and serially passing over said levels, and,

means for directing an ambient coolant over each said beam between said side sheets.

PAGE 14/15 * RCVD AT 2/18/2009 4:13:55 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-5/45 * DNIS:2738300 * CSID:1 914 664 3645 * DURATION (mm-ss):05-36

10. (New) The heat dissipating device defined in Claim 1 wherein said semiconductor chip device is mounted on a multilayer ceramic module.

11. (New) The heat dissipating device defined in Claim 1 wherein said semiconductor chip device is mounted on multiple chips on a supporting board.

PAGE 15/15 * RCVD AT 2/18/2009 4:13:55 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-5/45 * DNIS:2738300 * CSID:1 914 664 3645 * DURATION (mm-ss):05-36